Pace Analytical Services, Inc. 7726 Moller Road Indianapolis, IN 46268 (317)875-5894

February 08, 2012

Gene Nance TechLaw, Inc. 2208 Warwood Ave Wheeling, WV 26003

RE: Project: R33917

Pace Project No.: 5057872

#### Dear Gene Nance:

Enclosed are the analytical results for sample(s) received by the laboratory on February 01, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kenneth Hunt for Mick Mayse mick.mayse@pacelabs.com Project Manager

Enclosures

cc: Fred Foreman, EPA Suddha Graves, TechLaw, Inc.



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#### **CERTIFICATIONS**

Project: R33917 Pace Project No.: 5057872

**Indiana Certification IDs** 

7726 Moller Road, Indianapolis, IN 46268 Illinois Certification #: 100418 Indiana Certification #: C-49-06 Kansas Certification #: E-10247

Kentucky Certification #: 0042 Louisiana/NELAC Certification #: 04076 Ohio VAP: CL0065

West Virginia Certification #: 330

**REPORT OF LABORATORY ANALYSIS** 

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# **SAMPLE SUMMARY**

Project: R33917
Pace Project No.: 5057872

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5057872001	EB01	Water	01/28/12 11:26	02/01/12 07:59
5057872002	FB06	Water	01/30/12 09:30	02/01/12 07:59
5057872003	HW13	Water	01/30/12 11:23	02/01/12 07:59
5057872004	HW18	Water	01/30/12 11:27	02/01/12 07:59
5057872005	HW18-P	Water	01/30/12 11:52	02/01/12 07:59
5057872006	HW20	Water	01/30/12 16:12	02/01/12 07:59
5057872007	HW20-P	Water	01/30/12 16:29	02/01/12 07:59
5057872008	HW25-P	Water	01/30/12 15:32	02/01/12 07:59

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# **SAMPLE ANALYTE COUNT**

Project: R33917
Pace Project No.: 5057872

Lab ID	Sample ID	Method	Analysts	Analytes Reported	
5057872001	EB01	EPA 8015B Modified	RAK	1	
5057872002	FB06	EPA 8015B Modified	RAK	1	
5057872003	HW13	EPA 8015B Modified	RAK	1	
5057872004	HW18	EPA 8015B Modified	RAK	1	
5057872005	HW18-P	EPA 8015B Modified	RAK	1	
5057872006	HW20	EPA 8015B Modified	RAK	1	
5057872007	HW20-P	EPA 8015B Modified	RAK	1	
5057872008	HW25-P	EPA 8015B Modified	RAK	1	

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# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Sample: EB01 Lab ID: 5057872001 Collected: 01/28/12 11:26 Received: 02/01/12 07:59 Matrix: Water

Report

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

8015M Alcohols Analytical Method: EPA 8015B Modified

Ethylene glycol ND mg/L 10.0 5.0 1 02/02/12 16:20 107-21-1

Date: 02/08/2012 12:23 PM

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02/02/12 16:25 107-21-1

# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Ethylene glycol

Sample: FB06 Lab ID: 5057872002 Collected: 01/30/12 09:30 Received: 02/01/12 07:59 Matrix: Water

Report

ND mg/L

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

8015M Alcohols Analytical Method: EPA 8015B Modified

5.0

10.0

Date: 02/08/2012 12:23 PM

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02/02/12 16:30 107-21-1

# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Ethylene glycol

Sample: HW13 Lab ID: 5057872003 Collected: 01/30/12 11:23 Received: 02/01/12 07:59 Matrix: Water

Report

ND mg/L

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

8015M Alcohols Analytical Method: EPA 8015B Modified

5.0

10.0

Date: 02/08/2012 12:23 PM

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# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Sample: HW18 Lab ID: 5057872004 Collected: 01/30/12 11:27 Received: 02/01/12 07:59 Matrix: Water

Report

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

**8015M Alcohols** Analytical Method: EPA 8015B Modified

Ethylene glycol ND mg/L 10.0 5.0 1 02/02/12 16:35 107-21-1

Date: 02/08/2012 12:23 PM

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02/02/12 16:40 107-21-1

# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Ethylene glycol

Sample: HW18-P Lab ID: 5057872005 Collected: 01/30/12 11:52 Received: 02/01/12 07:59 Matrix: Water

Report

ND mg/L

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

8015M Alcohols Analytical Method: EPA 8015B Modified

5.0

10.0

Date: 02/08/2012 12:23 PM

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Pace Analytical Services, Inc. 7726 Moller Road Indianapolis, IN 46268 (317)875-5894

02/02/12 16:45 107-21-1

# **ANALYTICAL RESULTS**

Project: Pace Project No.:

Ethylene glycol

R33917 5057872

Sample: HW20 Lab ID: 5057872006 Collected: 01/30/12 16:12 Received: 02/01/12 07:59 Matrix: Water

Report

**Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed 8015M Alcohols Analytical Method: EPA 8015B Modified ND mg/L 10.0

5.0

Date: 02/08/2012 12:23 PM

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# **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Lab ID: 5057872007 Sample: HW20-P Collected: 01/30/12 16:29 Received: 02/01/12 07:59 Matrix: Water

Report

**Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed

8015M Alcohols Analytical Method: EPA 8015B Modified

ND mg/L 10.0 Ethylene glycol 5.0 02/02/12 16:50 107-21-1

Date: 02/08/2012 12:23 PM

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02/02/12 16:55 107-21-1

#### **ANALYTICAL RESULTS**

Project: R33917 Pace Project No.: 5057872

Ethylene glycol

Sample: HW25-P Lab ID: 5057872008 Collected: 01/30/12 15:32 Received: 02/01/12 07:59 Matrix: Water

Report

ND mg/L

Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

8015M Alcohols Analytical Method: EPA 8015B Modified

5.0

10.0

Date: 02/08/2012 12:23 PM

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#### **QUALITY CONTROL DATA**

R33917 Project: Pace Project No.: 5057872

QC Batch: GCSV/8845

QC Batch Method:

Analysis Method:

EPA 8015B Modified

EPA 8015B Modified

Analysis Description:

EPA 8015 Modified

Associated Lab Samples:

5057872001, 5057872002, 5057872003, 5057872004, 5057872005, 5057872006, 5057872007, 5057872008

METHOD BLANK: 681420

Matrix: Water

Associated Lab Samples:

Blank

Reporting

Parameter

Units Result

Limit Analyzed Qualifiers

Ethylene glycol

mg/L

ND

10.0

02/02/12 09:23

LABORATORY CONTROL SAMPLE:

Parameter

681421

Units

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

78-118

Qualifiers

Ethylene glycol

mg/L

mg/L

250

279

681423

112

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

681422

ND

MS

MSD Spike

MS MSD

MS

MSD % Rec % Rec Limits

Max RPD RPD

Parameter Ethylene glycol

5057872001 Units Result

Spike Conc.

250

Conc. 250

Result Result 242 211 % Rec 96

51-135

14 20

Qual

Date: 02/08/2012 12:23 PM

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#### **QUALIFIERS**

Project: R33917 Pace Project No.: 5057872

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

Date: 02/08/2012 12:23 PM

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

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# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: R33917
Pace Project No.: 5057872

Date: 02/08/2012 12:23 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
5057872001	EB01	EPA 8015B Modified	GCSV/8845	-	
5057872002	FB06	EPA 8015B Modified	GCSV/8845		
5057872003	HW13	EPA 8015B Modified	GCSV/8845		
5057872004	HW18	EPA 8015B Modified	GCSV/8845		
5057872005	HW18-P	EPA 8015B Modified	GCSV/8845		
5057872006	HW20	EPA 8015B Modified	GCSV/8845		
5057872007	HW20-P	EPA 8015B Modified	GCSV/8845		
5057872008	HW25-P	EPA 8015B Modified	GCSV/8845		

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